Glucagon (GCG) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Glucagon (GCG), Polyclonal Antibody
Full Product Name	Glucagon Rabbit pAb
Product Gene Name	anti-GCG antibody
Product Synonym Names	GLP1; GLP2; GRPP; GLP-1
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied in 50nM Tris-Glycine (pH 7.4), 0.15M Nacl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Purity/Purification	Affinity purified
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.
Molecular Weight	20,909 Da
Chromosome Location	Chromosome: 2; NC_000002.11 (162999379..163008914, complement). Location: 2q36-q37
OMIM	138030
3D Structure	ModBase 3D Structure for P01275
Immunogen	A synthetic peptide of human Glucagon
Product Categories/Family for anti-GCG antibody	Primary antibody
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-GCG antibody	Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-GCG antibody	WB: 1:1000 IHC: 1:50

Related Product Information for anti-GCG antibody	Glucagon plays a key role in glucose metabolism and homeostasis. Regulates blood glucose by increasing gluconeogenesis and decreasing glycolysis. A counterregulatory hormone of insulin, raises plasma glucose levels in response to insulin-induced hypoglycemia. Plays an important role in initiating and maintaining hyperglycemic conditions in diabetes.GLP-1 is a potent stimulator of glucose-dependent insulin release. Play important roles on gastric motility and the suppression of plasma glucagon levels. May be involved in the suppression of satiety and stimulation of glucose disposal in peripheral tissues, independent of the actions of insulin. Have growth-promoting activities on intestinal epithelium. May also regulate the hypothalamic pituitary axis (HPA) via effects on LH, TSH, CRH, oxytocin, and vasopressin secretion. Increases islet mass through stimulation of islet neogenesis and pancreatic beta cell proliferation. Inhibits beta cell apoptosis.GLP-2 stimulates intestinal growth and up-regulates villus height in the small intestine, concomitant with increased crypt cell proliferation and decreased enterocyte apoptosis. The gastrointestinal tract, from the stomach to the colon is the principal target for GLP-2 action. Plays a key role in nutrient homeostasis, enhancing nutrient assimilation through enhanced gastrointestinal function, as well as increasing nutrient disposal. Stimulates intestinal glucose transport and decreases mucosal permeability.Oxyntomodulin significantly reduces food intake. Inhibits gastric emptying in humans. Suppression of gastric emptying may lead to increased gastric distension, which may contribute to satiety by causing a sensation of fullness.Glicentin may modulate gastric acid secretion and the gastro-pyloro-duodenal activity. May play an important role in intestinal mucosal growth in the early period of life.MiscellaneousIn the glucagon antagonist, His-53 and Phe-58 are missing. This antagonist has been successfully utilized to reduce glucose concentration in vivo.
Other Notes	Small volumes of anti-GCG antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for GCG purchase	MBS8575889 is an antibody targeting GCG. Also known as Glucagon Rabbit pAb. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GCG. It may not necessarily be applicable to this product.

NCBI GI #	4503945
NCBI GeneID	2641
NCBI Accession #	NP_002045.1
UniProt Primary Accession #	P01275
UniProt Secondary Accession #	Q53TP6; A6NN65
UniProt Related Accession #	P01275
GenBank Nucleotide #	NM_002054.4
NCBI Official Full Name	glucagon preproprotein
NCBI Official Synonym Full Names	glucagon
NCBI Official Symbol	GCG
NCBI Official Synonym Symbols	GLP1; GLP2; GRPP
UniProt Protein Name	Glucagon
UniProt Synonym Protein Names	Incretin hormone
Protein Family	Glucagon
UniProt Gene Name	GCG
UniProt Synonym Gene Names	GRPP; OXM; OXY; GLP-1; GLP-1(7-37); GLP-1(7-36); GLP-2
UniProt Entry Name	GLUC_HUMAN
NCBI Protein Information	glucagon; preproglucagon; glucagon-like peptide 1; glucagon-like peptide 2; glicentin-related polypeptide

NCBI Summary for GCG	The protein encoded by this gene is actually a preproprotein that is cleaved into four distinct mature peptides. One of these, glucagon, is a pancreatic hormone that counteracts the glucose-lowering action of insulin by stimulating glycogenolysis and gluconeogenesis. Glucagon is a ligand for a specific G-protein linked receptor whose signalling pathway controls cell proliferation. Two of the other peptides are secreted from gut endocrine cells and promote nutrient absorption through distinct mechanisms. Finally, the fourth peptide is similar to glicentin, an active enteroglucagon. [provided by RefSeq, Jul 2008]
UniProt Comments for GCG	GCG: Glucagon plays a key role in glucose metabolism and homeostasis. Regulates blood glucose by increasing gluconeogenesis and decreasing glycolysis. A counterregulatory hormone of insulin, raises plasma glucose levels in response to insulin-induced hypoglycemia. Plays an important role in initiating and maintaining hyperglycemic conditions in diabetes. Glucagon release is stimulated by hypoglycemia and inhibited by hyperglycemia, insulin, and somatostatin. GLP-1 and GLP-2 are induced in response to nutrient ingestion. Glucagon is secreted in the A cells of the islets of Langerhans. GLP-1, GLP-2, oxyntomodulin and glicentin are secreted from enteroendocrine cells throughout the gastrointestinal tract. GLP1 and GLP2 are also secreted in selected neurons in the brain. Belongs to the glucagon family. Protein type: Hormone; Secreted; Secreted, signal peptide Chromosomal Location of Human Ortholog: 2q36-q37 Cellular Component: extracellular space; endoplasmic reticulum lumen; extracellular region; plasma membrane Molecular Function: identical protein binding; protein binding; hormone activity; glucagon receptor binding; receptor binding Biological Process: positive regulation of protein binding; positive regulation of histone H3-K4 methylation; signal transduction; positive regulation of peptidyl-serine phosphorylation; G-protein signaling, coupled to cAMP nucleotide second messenger; response to starvation; G-protein coupled receptor protein signaling pathway; cell proliferation; cellular protein metabolic process; positive regulation of protein kinase activity; positive regulation of cAMP biosynthetic process; energy reserve metabolic process; feeding behavior; regulation of insulin secretion; negative regulation of apoptosis
Research Articles on GCG	**1.** we aim to integrate the available data on the metabolic and neuroprotective effects of GLP-1 mimetics in the central nervous system (CNS) with the complex crosstalk between T2D-AD
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